

### REMARKS/ARGUMENTS

Claims 1-15 have been withdrawn subject to filing a divisional application.

Referring to paragraph 4, Claims 16-28 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The Examiner relies on the case *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). That case is inapplicable to the present facts. There, the Court affirmed the Board rejection as not being enabled based on passages quoted from the specification stating that the applicant regarded this invention to be practiced only by inclusion an element which is not present in the claims. 188 USPQ at 362. There is no requirement under 35 U.S.C. 112 that each and every element required to make a fully operable system be included in the claim. *In re Mayhew* does not stand for such a proposition. For example, it is well recognized that valid claims can be drawn to sub-combinations which are not operable in of themselves. For example, a claim to a device including electrodes which can operate only by passage of an electric current need not recite a power source.

MPEP § 2174 states *In re Mayhew* may support a non-enablement rejection if the specification recites a particular element to be essential to the practice of the invention. That is not true here. Nothing in the specification states that the elements set forth in paragraph 4 of the rejection are critical to the claimed invention.

Moreover, the rejection is incorrect in asserting that all disclosed embodiments require two electrodes. For example, the Summary of the Invention recites two embodiments of the apparatus. In the second embodiment (page 3, line 26 – page 4, line 13), no electrodes are utilized. This second embodiment of a packed bed without electrodes is described in detail at page 11, line 21 – page 13, line 17.

The Examiner also states that all embodiments require one barrier and resin as illustrated in FIG. 1. However, as illustrated in the Summary of the Invention, neither embodiment of the apparatus recites a barrier. Also, the first embodiment, page 3, lines 15-25, recites neither a

barrier nor resin. Further, even in a specific example of the first embodiment, an exemplary structure for a purifier according to the invention is stated to be illustrated in U.S. Patent No. 5,352,360 which describes systems which do not utilize a resin bed. The same comments apply with respect to the "two barriers and resin" of FIGS. 3-5 which are specific embodiments of the broader invention and not required to be in the broadest claims of the application. By way of example, even the specific embodiment of FIG. 2 herein refers to the configurations of the '360 patent, one of which discloses a single barrier. The same comments apply with respect to the two barrier and source solution disclosure at FIG. 4.

By way of summary with respect to the rejection under 35 U.S.C. 112, none of the elements in paragraph 4 of the rejection are recited in the specification to be critical to the invention. Neither *In re Mayhew* or any other case requires that each and every element is for a fully functional device be included in the claims. Moreover, in this instance, the independent claims describe the two types of apparatus set forth in the Summary of the Invention. Nothing in the remainder of the specification recites that the elements of paragraph 4 of the rejection are critical to the invention. Instead, they are recited to be different specific embodiments. There is no requirement that each element of a disclosed specific embodiment be included in the claims to satisfy 35 U.S.C. 112. It is respectfully requested that the rejection of Claims 16-28 under that section be withdrawn.

Claims 16-27 are rejected under 37 U.S.C. 102(e) as anticipated by Anderson Jr., et al. U.S. Patent No. 6,468,804. This rejection is respectfully traversed.

Independent Claims 16 and 27 as filed recited a contaminant-purifying housing defining a purifying flow channel in liquid communication with the chromatographic separation medium. The source of chromatography liquid eluent is in communication with the purifying flow channel inlet. Overall, the present invention relates to specific embodiments of eluent purifiers which are disposed between a source of liquid eluent and the chromatography medium. In contrast, the '804 patent relates solely to a system in which a suppressor is downstream of the chromatography column. It does not disclose an eluent purifier upstream of separation medium

as recited in the present claims.

To clarify this fundamental difference in the claimed invention from the '804 patent, the claims have been amended to (1) recite that the eluent is upstream of the purifying flow channel inlet and that the separation medium inlet is downstream from the purifying flow channel outlet, and (2) to include a sample injector as part of the claims. The sample injector is recited to be downstream from the purifying flow channel and upstream from the separation medium inlet.

The '804 patent relates solely to a suppressed ion chromatography system in which the eluent flows past a sample injector, through a chromatography column and then to a suppressor downstream from the column. There is no suggestion of an eluent purifier upstream of the sample injector.

Referring to paragraph 10, Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Small 5,633,171. Anderson is described above. Small also discloses a suppressed ion chromatography system, but does not include any contaminant-purifier upstream from a sample injector and chromatography column. Thus, neither reference, alone or in combination, provides a key element of the present invention, namely eluent purifying devices which purify the eluent prior to injecting and separating the sample.

Claim 26 recites a suppressed ion chromatography system which, in addition to the eluent contaminant-purifier upstream of the sample injector, includes a suppressor. Such a system is neither disclosed nor suggested by the prior art.

Referring to Claims 27 and 28, specific forms of eluent purifiers are disclosed. Claim 27 includes specific valving, and Claim 28 includes a second contaminant-purifier. These limitations provide additional distinctions from the prior art.

It is submitted that the claims are in condition for allowance. Favorable action is solicited.

Serial No.: 10/043,645  
Filed: January 10, 2002

No fees beyond the one month extension fee are believed due in connection with this Amendment and Response. However, the Commissioner is authorized to charge any required fee not included with this Amendment and Response, including extension fees, or credit any overpayment to Dorsey & Whitney Deposit Account No. 50-2319 (Attorney Docket No. A-70839/DJB [465377-1022]).

Respectfully submitted,

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Dated: 10/27/05

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Filed under 37 C.F.R. § 1.34(a)

4814-3523-7120\1